

Abstract

A backplane bus system and related method for increasing the throughput of cPCI-specified backplane architectures. The system includes an interposer card for transforming reflective-wave switching into incident-wave switching.

- 5 Establishing incident-wave switching on the bus along with careful slot pitch and impedance layout increases the rate at which the voltage amplitude observed by all receivers connected to the bus is sufficient to produce a change of state on the first signal propagation down the bus. Most existing peripherals are configured with transceivers that produce reflective-wave switching. The present system
- 10 includes an interposer card to transform that switching into incident-wave switching. A preferred transceiver for doing so and that is implemented on the interposer card is a GTLP transceiver. A state machine is employed to regulate operation of the incident-wave switching transceiver. The system may be used to permit implementation of as many as 21 slots on a conventional cPCI backplane.